

AMENDMENTS TO THE CLAIMS

1-50 Cancelled.

51. (New) A microelectromechanical package comprising:

a first substrate having at least one functional element and at least two metal leads thereon, at least one of the two metal leads being connected to the functional element;

a second substrate having a silicon portion, a silicon oxide portion, at least one recessed cavity in the silicon portion, and at least two metal connectors in the recessed cavity;

a first bond between a non-recessed surface of the silicon portion of the second substrate and the first substrate wherein the at least one recessed cavity is hermetically sealed thereby, and wherein the functional element and connected metal lead of the first substrate are enclosed within the at least one recessed cavity of the second substrate and hermetically sealed therein;

a second bond between each of the at least two metal connectors of the second substrate and a respective one of the at least two metal leads of the first substrate; and

a metal pad connected to each metal connector of the second substrate through the silicon oxide portion and silicon portion.

52. (New) The package of claim 51 wherein the functional element of the first substrate is connected to two of the at least two metal leads of the first substrate, and the functional elements and two connected leads are enclosed within the at least one recessed cavity of the second substrate.

53. (New) The package of claim 51 further comprising a passivation layer overlying the silicon oxide portion of the second substrate and overlying a portion of the metal pad.
54. (New) The package of claim 53 wherein the passivation layer comprises silicon nitride.
55. (New) The package of claim 51 further comprising an oxide layer overlying the non-recessed surface and within the recessed cavity, wherein the first bond is between the oxide layer and the first substrate, and wherein the at least two metal connectors are on the oxide layer within the recessed cavity.
56. (New) The package of claim 51 wherein the first substrate comprises a portion of a silicon base wafer.
57. (New) The package of claim 51 wherein the first substrate comprises a portion of a Pyrex glass base wafer.
58. (New) The package of claim 51 wherein the metal leads and the metal connectors each comprise a metal selected from the group consisting of: aluminum, gold, aluminum alloy, and gold alloy.
59. (New) The package of claim 51 wherein the metal leads and connectors comprise the same metal.

60. (New) The package of claim 51 wherein the metal pads comprise aluminum on a titanium/titanium nitride liner.

61. (New) The package of claim 51 wherein the metal pads comprise gold on a chromium liner.

62. (New) The package of claim 51 wherein the second substrate comprises a plurality of recessed cavities in the silicon portion, each cavity having at least one metal connector therein, the functional element being enclosed and sealed within one of the plurality of cavities, and the metal pads on each of the metal connectors connecting over the oxide portion.

63. (New) The package of claim 62 further comprising a plurality of functional elements, each unique functional element enclosed and sealed within a corresponding unique one of the plurality of cavities.

64. (New) The package of claim 51 wherein the functional element is connected to two metal leads within the recessed cavity.

65. (New) A microelectromechanical package comprising:

- a first substrate;
- microelectromechanical device positioned on the first substrate;
- an electrically conductive lead positioned on the first substrate and electrically coupled to the microelectromechanical device;
- a second substrate bonded to the first substrate such that the microelectromechanical device is hermetically sealed within a cavity in the second substrate;
- an electrically conductive bonding pad extending through the second substrate;

and

- an electrically conductive connector positioned on the second substrate within the cavity and positioned to form an electrical connection between the bonding pad and the lead.

66. (New) The package of claim 65 further comprising:

- an electrically conductive second lead positioned on the first substrate and electrically coupled to the microelectromechanical device;
- an electrically conductive second bonding pad extending through the second substrate; and
- an electrically conductive second connector positioned on the second substrate within the cavity and positioned to form an electrical connection between the second bonding pad and the second lead.

67. (New) The package of claim 65 further comprising:
a second microelectromechanical device positioned on the first substrate and hermetically sealed within a second cavity in the second substrate;
an electrically conductive second lead positioned on the first substrate and electrically coupled to the second microelectromechanical device; and
an electrically conductive second connector positioned on the second substrate within the second cavity and positioned to form an electrical connection between the bonding pad and the second lead.
68. (New) The package of claim 65 further comprising an oxide layer between the first and the second substrates.
69. (New) The package of claim 65 wherein the connector is positioned on a surface of an oxide layer.
70. (New) The package of claim 65 further comprising a passivation layer overlying the second substrate.